

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently amended) A method for producing a magnetoresistive element comprising a tunnel insulating layer, and a first magnetic layer and a second magnetic layer that are laminated so as to sandwich the tunnel insulating layer,

wherein a resistance value varies depending on a relative angle between magnetization directions of the first magnetic layer and the second magnetic layer, the method comprising the steps of:

(i) laminating a first magnetic layer, a third magnetic layer and an Al layer successively on a substrate;

(ii) forming a tunnel insulating layer containing at least one compound selected from the group consisting of an oxide, nitride and oxynitride of Al by performing at least one reaction selected from the group consisting of oxidation, nitriding and oxynitriding of the Al layer; ~~and~~

(iii) forming a laminate comprising the first magnetic layer, the tunnel insulating layer and a second magnetic layer by laminating the second magnetic layer in such a manner that the tunnel insulating layer is sandwiched by the first magnetic layer and the second magnetic layer[[,]] ; and

(iv) heat treating the laminate at not less than 350°C,

wherein the third magnetic layer comprises a magnetic material containing at least one element selected from the group consisting of Fe, Co, and Ni,

the magnetic material further contains at least one element selected from the group consisting of Rh, Pd, Ag, Ir, Pt, and Au, and

the third magnetic layer has at least one crystal structure selected from the group consisting of a face-centered cubic crystal structure and a face-centered tetragonal crystal structure and is (111) oriented parallel to a film plane of the third magnetic layer.

2. (Canceled)

3. (Currently amended) The method for producing a magnetoresistive element according to claim [[2]] 1,

wherein the magnetic material has a composition represented by the formula Fe_xCo_y ,

where x and y are values satisfying the following equations:

$$x + y = 1$$

$$0.05 \leq x \leq 0.3$$

$$0.7 \leq y \leq 0.95$$

4. (Currently amended) The method for producing a magnetoresistive element according to claim [[2]] 1,

wherein the magnetic material has a composition represented by the formula $\text{Fe}_{x'}\text{Ni}_{y'}$,

where x' and y' are values satisfying the following equations:

$$x' + y' = 1$$

$$0 \leq x' \leq 0.7$$

$$0.3 \leq y' \leq 1$$

5. (Canceled)

6. (Currently amended) The method for producing a magnetoresistive element according to claim [[5]] 1,

wherein the magnetic material has a composition represented by the formula M_pZ_q ,

where M is at least one element selected from the group consisting of Fe, Co and Ni,

Z is at least one element selected from the group consisting of Rh, Pd, Ag, Ir, Pt and Au,

and

p and q are values satisfying the following equations:

$$p + q = 1$$

$$0.6 \leq p \leq 0.99$$

$$0.01 \leq q \leq 0.4$$

7. (Original) The method for producing a magnetoresistive element according to claim 1,
wherein an antiferromagnetic layer is laminated between the substrate and the first
magnetic layer in the step (i).

8-22. (Canceled)